```
***     C U R E A L L     ***

        V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

 SLS-1 R+0 AEM FLIGHT (RFA) ADD LONGUS MUSCLE AREA / BODY WEIGHT

                  Here is the RAW DATA:
                  --------------------
                              6.10000
                              5.70000
                              5.15000
                              5.73000
                              4.18000

Number of data points (N) =          5

Sum of the individual data points =        26.86000
Mean =                                      5.37200
Sum of the squares =                        2.23588
Standard deviation (S) =                    0.74764
Variance (S squared) =                      0.55897
Standard error (s sub xbar) =               0.33436
Coefficient of variation =                 13.91740

T value, 95% =                                      2.77600
T value, 99% =                                      4.60400

95% CONFIDENCE INTERVAL IS AS FOLLOWS:

Low end of 95% interval is:                         4.44383
Midpoint of 95% interval (MEAN) is:                 5.37200
High end of 95% interval is:                        6.30017
Total length of 95% interval is:                    1.85635
Half length of 95% interval is:                     0.92817

99% CONFIDENCE INTERVAL IS AS FOLLOWS:

Low end of 99% interval is:                         3.83262
Midpoint of 99% interval (MEAN) is:                 5.37200
High end of 99% interval is:                        6.91138
Total length of 95% interval is:                    3.07875
Half length of 99% interval is:                     1.53938

***** END OF CUREALL RUN *****
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***     C U R E A L L     ***

        V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

 SLS-1 DFPT R+0 AEM FLIGHT (DRFA) ADD LONGUS MUSCLE AREA / BD WGT

              Here is the RAW DATA:
              --------------------
                           7.98000
                          11.26000
                          10.48000
                           6.91000
                           9.62000

Number of data points (N) =           5

Sum of the individual data points =       46.25000
Mean =                                     9.25000
Sum of the squares =                      12.77840
Standard deviation (S) =                   1.78734
Variance (S squared) =                     3.19460
Standard error (s sub xbar) =              0.79932
Coefficient of variation =                19.32264

T value, 95% =                                 2.77600
T value, 99% =                                 4.60400

95% CONFIDENCE INTERVAL IS AS FOLLOWS:

Low end of 95% interval is:                    7.03107
Midpoint of 95% interval (MEAN) is:            9.25000
High end of 95% interval is:                  11.46893
Total length of 95% interval is:               4.43785
Half length of 95% interval is:                2.21893

99% CONFIDENCE INTERVAL IS AS FOLLOWS:

Low end of 99% interval is:                    5.56991
Midpoint of 99% interval (MEAN) is:            9.25000
High end of 99% interval is:                  12.93009
Total length of 95% interval is:               7.36018
Half length of 99% interval is:                3.68009

***** END OF CUREALL RUN *****
```

```
***     C U R E A L L     ***

        V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

 SLS-1 R+O FLIGHT RAHF (RFR) ADD LONGUS MUSCLE AREA / BODY WEIGHT

                 Here is the RAW DATA:
                 --------------------
                              6.18000
                              5.41000
                              5.38000
                              5.47000
                              3.21000
                              5.37000
                              5.10000
                              3.89000
                              4.62000

Number of data points (N) =           9

Sum of the individual data points =       44.63000
Mean =                                      4.95889
Sum of the squares =                        6.63809
Standard deviation (S) =                    0.91091
Variance (S squared) =                      0.82976
Standard error (s sub xbar) =               0.30364
Coefficient of variation =                 18.36928

T value, 95% =                                         2.30600
T value, 99% =                                         3.35500

95% CONFIDENCE INTERVAL IS AS FOLLOWS:

Low end of 95% interval is:                            4.25870
Midpoint of 95% interval (MEAN) is:                    4.95889
High end of 95% interval is:                           5.65908
Total length of 95% interval is:                       1.40038
Half length of 95% interval is:                        0.70019

99% CONFIDENCE INTERVAL IS AS FOLLOWS:

Low end of 99% interval is:                            3.94019
Midpoint of 99% interval (MEAN) is:                    4.95889
High end of 99% interval is:                           5.97759
Total length of 95% interval is:                       2.03741
Half length of 99% interval is:                        1.01870

***** END OF CUREALL RUN *****
```

```
***    C U R E A L L    ***

        V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

 SLS-1 DFPT R+0 RAHF FLIGHT (DRFR) ADD LONGUS MUSCLE AREA / BD WGT

              Here is the RAW DATA:
              --------------------
                        9.42000
                        8.92000
                        7.92000
                        6.77000
                        8.52000
                        8.17000
                        7.11000
                       10.79000
                       10.39000
                        7.93000

Number of data points (N) =        10

Sum of the individual data points =      85.94000
Mean =                                    8.59400
Sum of the squares =                     15.44624
Standard deviation (S) =                  1.31006
Variance (S squared) =                    1.71625
Standard error (s sub xbar) =             0.41428
Coefficient of variation =               15.24385

T value, 95% =                                      2.26200
T value, 99% =                                      3.25000

95% CONFIDENCE INTERVAL IS AS FOLLOWS:

Low end of 95% interval is:                         7.65691
Midpoint of 95% interval (MEAN) is:                 8.59400
High end of 95% interval is:                        9.53109
Total length of 95% interval is:                    1.87419
Half length of 95% interval is:                     0.93709

99% CONFIDENCE INTERVAL IS AS FOLLOWS:

Low end of 99% interval is:                         7.24760
Midpoint of 99% interval (MEAN) is:                 8.59400
High end of 99% interval is:                        9.94040
Total length of 95% interval is:                    2.69280
Half length of 99% interval is:                     1.34640

***** END OF CUREALL RUN *****
```

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*** STUDENT'S T - TEST ***

          V2.60 Dec 91 - by Stanley Kaplan, Ph.D.            AL

FLIGHT DARK MIXED RAHF VS DFPT DARK MIXED RAHF MUSCLE FIBER AREA (RAHF 1-4)

Calculated F-ratio =     2.1564  with 3 . 3 degrees of freedom.

The variances are equal since     2.1564 is less than     9.2800

                    *** R A W   D A T A ***

                      GROUP 1                 GROUP 2
                      -------                 -------
    1 ====>           2212.0000               2017.0000
    2 ====>           2134.0000               2254.0000
    3 ====>           1729.0000               2165.0000
    4 ====>           2252.0000               1883.0000


   N's        ====>        4                       4

Total         ===>     8327.0000               8319.0000

Means         ===>     2081.7500               2079.7500

Sum of squares ===>  173112.7500              80278.7500

Variances     ===>    57704.2500              26759.5833

Std deviations ===>     240.2171                163.5836

Calculated value of T =      0.0138 with   6 degrees of freedom.


The exact P-value is:      0.9895    or        1.05%


The samples do NOT differ significantly at the 5% level. ONE-TAILED.

The samples do NOT differ significantly at the 1% level. ONE-TAILED.


The samples do NOT differ significantly at the 5% level. TWO-TAILED.

The samples do NOT differ significantly at the 1% level. TWO-TAILED.
```

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        *** STUDENT'S T - TEST ***

                V2.60 Dec 91 - by Stanley Kaplan, Ph.D.        AL

        FLIGHT INTERMED MIXED RAHF VS DFPT INTERMEDD MIXED RAHF MFA  (RAHF 1-4)

        Calculated F-ratio =     20.2386   with 3 . 3 degrees of freedom.

        The variances are UNequal since     20.2386 is greater than      9.2800

                            *** R A W    D A T A ***

                            GROUP 1                   GROUP 2
                            -------                   -------
            1  ====>        1498.0000                 1743.0000
            2  ====>        1580.0000                 1967.0000
            3  ====>        1168.0000                 2041.0000
            4  ====>        1656.0000                    0.0000


        N's           ===>          4                       4

        Total         ===>     5902.0000                5751.0000

        Means         ===>     1475.5000                1437.7500

        Sum of squares ===>  138563.0000              2804318.7500

        Variances     ===>    46187.6667               934772.9167

        Std deviations ===>     214.9132                 966.8366

        Calculated value of T =      0.0762 with   3 degrees of freedom.


        The exact P-value is:       0.9440     or       5.60%


        The samples do NOT differ significantly at the 5% level. ONE-TAILED.

        The samples do NOT differ significantly at the 1% level. ONE-TAILED.


        The samples do NOT differ significantly at the 5% level. TWO-TAILED.

        The samples do NOT differ significantly at the 1% level. TWO-TAILED.
```

174

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*** STUDENT'S T - TEST ***

          V2.60 Dec 91 - by Stanley Kaplan, Ph.D.        AL

FLIGHT LIGHT MIXED RAHF VS DFPT LIGHT MIXED RAHF MUSCLE FIBER AREA   (RAHF 1-4)

Calculated F-ratio =      3.1177  with 3 . 3 degrees of freedom.

The variances are equal since     3.1177 is less than     9.2800

                    *** R A W    D A T A ***

                    GROUP 1                GROUP 2
                    -------                -------
     1 ====>        1949.0000              2444.0000
     2 ====>        1622.0000              2260.0000
     3 ====>        1307.0000              2420.0000
     4 ====>        2103.0000              2008.0000


     N's       ===>        4                   4

Total         ===>    6981.0000           9132.0000

Means         ===>    1745.2500           2283.0000

Sum of squares ===>  376752.7500         120844.0000

Variances      ===>  125584.2500          40281.3333

Std deviations ===>    354.3787            200.7021

Calculated value of T =     2.6408 with   6 degrees of freedom.


The exact P-value is:       0.0385    or       96.15%


The samples DO differ significantly at the 5% level. ONE-TAILED.

The samples do NOT differ significantly at the 1% level. ONE-TAILED.


The samples DO differ significantly at the 5% level. TWO-TAILED.

The samples do NOT differ significantly at the 1% level. TWO-TAILED.
```

175

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*** STUDENT'S T - TEST ***

            V2.60 Dec 91 - by Stanley Kaplan, Ph.D.      AL

FLIGHT INTERMED SLOW RAHF VS DFPT INTERMED SLOW RAHF MFA   (RAHF 1-4)

Calculated F-ratio =    125.5997  with 3 . 3 degrees of freedom.

The variances are UNequal since    125.5997 is greater than      9.2800

                        *** R A W    D A T A ***

                        GROUP 1                GROUP 2
                        --------               --------
      1 ====>           1715.0000               0.0000
      2 ====>           1890.0000               0.0000
      3 ====>           1711.0000            2400.0000
      4 ====>           1609.0000            2110.0000


     N's      ====>          4                      4

   Total      ====>     6925.0000             4510.0000

   Means      ====>     1731.2500             1127.5000

Sum of squares ===>    40820.7500          5127075.0000

Variances     ===>     13606.9167          1709025.0000

Std deviations ===>      116.6487            1307.2968

Calculated value of T =      0.9200 with   3 degrees of freedom.


The exact P-value is:      0.4254     or      57.46%


The samples do NOT differ significantly at the 5% level. ONE-TAILED.

The samples do NOT differ significantly at the 1% level. ONE-TAILED.


The samples do NOT differ significantly at the 5% level. TWO-TAILED.

The samples do NOT differ significantly at the 1% level. TWO-TAILED.
```

176

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*** STUDENT'S T - TEST ***

        V2.60 Dec 91 - by Stanley Kaplan, Ph.D.          AL
FLIGHT LIGHT SLOW RAHF VS DFPT LIGHT SLOW RAHF MUSCLE FIBER AREA (RAHF 1-4)

Calculated F-ratio =     21.8777  with 3 . 3 degrees of freedom.

The variances are UNequal since     21.8777 is greater than     9.2800

                    *** R A W   D A T A ***

                      GROUP 1                GROUP 2
                      -------                -------
      1 ====>         2146.0000              2888.0000
      2 ====>         2286.0000              3616.0000
      3 ====>         2118.0000              2830.0000
      4 ====>         2278.0000              2715.0000


    N's        ===>          4                      4

Total          ===>     8828.0000             12049.0000

Means          ===>     2207.0000              3012.2500

Sum of squares ===>    22924.0000            501524.7500

Variances      ===>     7641.3333            167174.9167

Std deviations ===>       87.4147               408.8703

Calculated value of T =     3.8519 with   3 degrees of freedom.


The exact P-value is:      0.0309     or      96.91%


The samples DO differ significantly at the 5% level. ONE-TAILED.

The samples do NOT differ significantly at the 1% level. ONE-TAILED.


The samples DO differ significantly at the 5% level. TWO-TAILED.

The samples do NOT differ significantly at the 1% level. TWO-TAILED.
```

177

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        *** STUDENT'S T - TEST ***

             V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

    FLIGHT DARK MIXED RAHF VS DFPT DARK MIXED RAHF MFA (RAHF 6-10) AL

    Calculated F-ratio =      2.3923  with 4 . 4 degrees of freedom.

    The variances are equal since     2.3923 is less than      6.3900

                        *** R A W    D A T A ***

                        GROUP 1                GROUP 2
                        -------                -------
        1 ====>         1076.0000              2479.0000
        2 ====>         2076.0000              1884.0000
        3 ====>         2334.0000              2439.0000
        4 ====>         1774.0000              2613.0000
        5 ====>         1950.0000              2068.0000


        N's        ===>         5                     5

    Total          ===>    9210.0000             11483.0000

    Means          ===>    1842.0000              2296.6000

    Sum of squares ===>  899864.0000            376153.2000

    Variances      ===>  224966.0000             94038.3000

    Std deviations ===>    474.3058               306.6566

    Calculated value of T =      1.7998 with   8 degrees of freedom.


    The exact P-value is:      0.1096    or       89.04%


    The samples do NOT differ significantly at the 5% level, ONE-TAILED.

    The samples do NOT differ significantly at the 1% level, ONE-TAILED.


    The samples do NOT differ significantly at the 5% level, TWO-TAILED.

    The samples do NOT differ significantly at the 1% level, TWO-TAILED.
```

183

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*** STUDENT'S T - TEST ***

       V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

FLIGHT INTERMED MIXED RAHF VS DFPT INTERMED MIXED RAHF MFA (6-10) AL

Calculated F-ratio =     10.5342  with 4 , 4 degrees of freedom.

The variances are UNequal since     10.5342 is greater than        6.3900

                       *** R A W    D A T A ***

                         GROUP 1                    GROUP 2
                         -------                    -------
       1 ====>           931.0000                  1699.0000
       2 ====>          1363.0000                  1990.0000
       3 ====>          2015.0000                     0.0000
       4 ====>           967.0000                  3385.0000
       5 ====>          1136.0000                     0.0000


   N's           ===>         5                          5

   Total         ===>      6412.0000                  7074.0000

   Means         ===>      1292.4000                  1414.8000

   Sum of squares ===>   787591.2000              8296630.8000

   Variances     ===>    196897.8000              2074157.7000

   Std deviations ===>      443.7317                 1440.1936

   Calculated value of T =       0.1965 with   5 degrees of freedom.


   The exact P-value is:        0.8520      or       14.80%


   The samples do NOT differ significantly at the 5% level. ONE-TAILED.
   The samples do NOT differ significantly at the 1% level. ONE-TAILED.


   The samples do NOT differ significantly at the 5% level. TWO-TAILED.
   The samples do NOT differ significantly at the 1% level. TWO-TAILED.
```

184

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      *** STUDENT'S T - TEST ***

            V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

  FLIGHT LIGHT MIXED RAHF VS DFPT LIGHT MIXED RAHF MFA (RAHF 6-10) AL

  Calculated F-ratio =       8.2121   with 4 , 4 degrees of freedom.

  The variances are UNequal since       8.2121 is greater than      6.3900

                      *** R A W    D A T A ***

                        GROUP 1                 GROUP 2
                        -------                 -------
       1 ====>          1012.0000               2402.0000
       2 ====>          1582.0000               2273.0000
       3 ====>          2422.0000               2716.0000
       4 ====>          1187.0000               2645.0000
       5 ====>          1224.0000               2329.0000


   N's           ===>          5                       5

  Total          ===>      7427.0000              12365.0000

  Means          ===>      1485.4000               2473.0000

  Sum of squares ===> 1268031.2000               154410.0000

  Variances      ===>   317007.8000                38602.5000

  Std deviations ===>      563.0345                  196.4752

  Calculated value of T =     3.7032 with    5 degrees of freedom.



  The exact P-value is:        0.0140     or        98.60%



  The samples DO differ significantly at the 5% level, ONE-TAILED.

  The samples DO differ significantly at the 1% level, ONE-TAILED.



  The samples DO differ significantly at the 5% level, TWO-TAILED.

  The samples do NOT differ significantly at the 1% level, TWO-TAILED.
```

185

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*** STUDENT'S T - TEST ***

        V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

FLIGHT INTERMED SLOW RAHF VS DFPT INTERMED SLOW RAHF MFA (6-10) AL

Calculated F-ratio =      20.0015  with 4 , 4 degrees of freedom.

The variances are UNequal since     20.0015 is greater than      6.3900

                    *** R A W   D A T A ***

                    GROUP 1                 GROUP 2
                    -------                 -------
    1 ====>         1208.0000               2910.0000
    2 ====>         1737.0000                  0.0000
    3 ====>         1750.0000                  0.0000
    4 ====>         1210.0000                  0.0000
    5 ====>         1691.0000               1086.0000


   N's         ====>        5                       5

Total         ===>      7596.0000               3996.0000

Means         ===>      1519.2000                799.2000

Sum of squares ===>   322670.8000             6453892.8000

Variances      ===>    80667.7000             1613473.2000

Std deviations ===>      284.0206               1270.2256

Calculated value of T =      1.2369 with   5 degrees of freedom.


The exact P-value is:       0.2710    or       72.90%


The samples do NOT differ significantly at the 5% level, ONE-TAILED.

The samples do NOT differ significantly at the 1% level, ONE-TAILED.


The samples do NOT differ significantly at the 5% level, TWO-TAILED.

The samples do NOT differ significantly at the 1% level, TWO-TAILED.
```

186

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        *** STUDENT'S T - TEST ***

               V2.60 Dec 91 - by Stanley Kaplan, Ph.D.

FLIGHT LIGHT SLOW RAHF VS DFPT LIGHT SLOW RAHF MFA (RAHF 6-10) AL

Calculated F-ratio =      1.2652  with 4 , 4 degrees of freedom.

The variances are equal since      1.2652 is less than      6.3900

                       *** R A W   D A T A ***

                          GROUP 1              GROUP 2
                          --------             --------
        1  ====>          1370.0000            2788.0000
        2  ====>          2209.0000            2755.0000
        3  ====>          1964.0000            3300.0000
        4  ====>          1446.0000            3736.0000
        5  ====>          1559.0000            3239.0000


     N's         ====>          5                    5

  Total         ====>    8548.0000           15818.0000

  Means         ===>     1709.6000            3163.6000

  Sum of squares ===>  521613.2000          659961.2000

  Variances     ===>   130403.3000          164990.3000

  Std deviations ===>     361.1140             406.1900

  Calculated value of T =     5.9820 with   8 degrees of freedom.


  The exact P-value is:        0.0003     or       99.97%


  The samples DO differ significantly at the 5% level. ONE-TAILED.

  The samples DO differ significantly at the 1% level, ONE-TAILED.


  The samples DO differ significantly at the 5% level, TWO-TAILED.

  The samples DO differ significantly at the 1% level. TWO-TAILED.
```

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